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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,233	01/31/2001	Alexander Mayzel	AREWP0105US	6140

7590 07/02/2003

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16  
EXAMINER

JACKSON, MONIQUE R

ART UNIT

PAPER NUMBER

1773

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/773,233

Applicant(s)

MAYZEL, ALEXANDER

Examiner

Monique R Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### **DETAILED ACTION**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 102***

2. Claims 19-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Iacovangelo (USPN 6,420,032.) Iacovangelo teaches a multilayer film comprising a substrate 1, an interlayer 5 comprising plasma polymerized organosilicon, an adhesion promoting layer 2 of Ag or Al preferably formed by deposition or sputtering, a UV absorption metal oxide layer 3 such as zinc oxide, aluminum doped zinc oxide, or indium doped zinc oxide; and an organosiloxane abrasion resistant layer 4 overlying the metal oxide layer 3 (Abstract; Col. 2, lines 27-46; Col. 3, lines 9-42; Col. 5, lines 23-55; Col. 6, line 13-Col. 7, line 12.)

#### ***Claim Rejections - 35 USC § 103***

3. Claims 19-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimabukuro et al in view of Iacovangelo. Shimabukuro et al teach a reflector comprising a base body, a reflecting layer made of aluminum formed on one surface of the base body by vacuum deposition, a light-transmitting water-insoluble inorganic oxide layer formed by vacuum deposition on the aluminum reflecting layer, and a protective sealing layer on the surface of the inorganic oxide layer; wherein the oxide layer may be zirconium oxide, silicon dioxide, silicone monoxide, aluminum oxide, indium oxide; wherein the base body may be an electrically conductive substrate whose surface is coated with a dielectric material such as a metal or graphite substrate coated with an inorganic compound such as silica, polysiloxane, or polyester paint; and wherein a smoothing layer may be provided on the surface of the base body by

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hardening and baking an inorganic compound such as silicon oxide paint, polycarbonate paint or polysiloxane paint (Abstract; Figure 1; Col. 2, line 22-Col. 3, line 51; Examples.) Hence, Shimabukuro et al disclose: metal base body coated with inorganic coating/smoothing layer of polycarbonate or polysiloxane paint (*polymeric layer overlying the inorganic coating*)/vacuum deposited aluminum/inorganic oxide layer such as aluminum oxide/protective sealing. Though Shimabukuro et al teach the use of a protective sealer on the coated substrate, Shimabukuro et al do not teach the use of an organosiloxane topcoat layer however, it is known in the art that an organosiloxane topcoat layer can provide over a metal oxide layer to provide improved protective properties such as abrasion resistance as taught by Iacovangelo, and hence, one having ordinary skill in the art at the time of the invention would have been motivated to utilize a polysiloxane protective topcoat for the invention taught by Shimabukuro et al. Further, though Shimabukuro et al teach the use of an inorganic or polymeric smoothing layer on the surface of the base body, Shimabukuro et al do not specifically teach an adhesion-promoting layer as in instant claim 30 between the polymeric coating layer and the aluminum layer. However, it would have been obvious to one having ordinary skill in the art to include intermediate tie layers between two adjacent layers to provide improved adhesion between the layers as deemed necessary based on the desired end use of the coated product and hence one having ordinary skill in the art would have been motivated to provide adhesion promoting layers between any two adjacent layers taught by Shimabukuro et al to provide the desired adhesion for a particular end use. Additionally, Iacovangelo teach that a plasma polymerized interlayer can be utilized between a polymer layer and a metal layer or any two layers of the multilayer structure discussed above to reduce stress that may occur due to the different coefficients of thermal expansion,

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different ductility, and elastic modulus (Col. 6, lines 44-59.) Hence, one having ordinary skill in the art at the time of the invention would have been motivated to utilize an interlayer taught by Iacovangelo between any two layers of the composite taught by Shimabukuro et al.

***Response to Arguments***

4. Applicant's arguments with respect to claims 19-30 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Monique R. Jackson  
Patent Examiner  
Technology Center 1700  
June 30, 2003